

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (ORIGINAL), (CURRENTLY AMENDED), (CANCELLED), (WITHDRAWN), (NEW), (PREVIOUSLY PRESENTED), or (NOT ENTERED).

Please AMEND claims 1, 2 and 7 and ADD claims 8-13 in accordance with the following:

1. (CURRENTLY AMENDED) A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:

an interface unit receiving signals from sensors and sending the received signals to the motor control section; and

a data table storing a correspondence between the sensors and the motors,

wherein the motor control section receives the signals from ~~one or~~ a plurality of sensors through the interface unit and controls ~~one or a plurality of motors~~ motor corresponding to the ~~one or~~ a plurality of sensors according to the correspondence between the sensors and the motors set in the data table.

2. (CURRENTLY AMENDED) The numerical controller of claim 1, wherein the correspondence between the sensors and the motors is ~~one-to-one, one-to-n, or n-to-one~~ (n being an integer greater than or equal to two).

3. (PREVIOUSLY PRESENTED) The numerical controller of claim 1, wherein an emergency stop signal is associated with the motors as one of the sensor signals.

4. (ORIGINAL) A numerical controller in which a plurality of servo amplifiers and one interface unit or a plurality of interface units are interconnected through a serial bus in a daisy chain fashion, the numerical controller comprising:

a plurality of servo motors controlled by the plurality of servo amplifiers;

a plurality of sensors, including a sensor that senses the position of a movable part driven by at least one of the servo motors; and

a memory storing a data table in which one or more of the sensors in the plurality of sensors are assigned to each of the plurality of servo motors; wherein:

the interface unit receives a plurality of signals from the sensors and sends the plurality of signals to the numerical controller; and

the numerical controller receives the signals sent from the plurality of sensors through the interface unit sequentially, identifies a sensor that has sent each of the signals according to an order of reception of the signals, determines a servo motor corresponding to the identified sensor with reference to the data table, and controls the determined servo motor according to the signal received from the sensor.

5. (ORIGINAL) The numerical controller of claim 4, wherein the sensors include at least one of a linear scale that senses the position of a table driven by a servo motor, a sensor that senses a temperature, a pressure, a voltage, or a current, and a limit switch.

6. (PREVIOUSLY PRESENTED) The numerical controller of claim 2, wherein an emergency stop signal is associated with the motors as one of the sensor signals.

7. (CURRENTLY AMENDED) A method of controlling motors according to movement commands from a numerical controller, comprising:

receiving signals from sensors and sending the received signals to a motor control;

storing a correspondence between sensors and motors in a data table;

receiving the signals from ~~one or~~ a plurality of sensors through an interface; and

controlling ~~one or~~ a plurality of ~~motors~~motor corresponding to the ~~one or~~ the plurality of sensors according to the correspondence between the sensors and the motors set in the data table.

8. (NEW) A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:

an interface unit receiving signals from sensors and sending the received signals to the motor control section; and

a data table storing a correspondence between the sensors and the motors,

wherein the motor control section receives the signals from one sensor through the interface unit and controls a plurality of motors corresponding to the one sensor according to the

correspondence between the sensors and the motors set in the data table.

9. (NEW) A method of controlling motors according to movement commands from a numerical controller, comprising:

receiving signals from sensors and sending the received signals to a motor control;

storing a correspondence between sensors and motors in a data table;

receiving the signals from one sensor through an interface; and

controlling a plurality of motors corresponding to one sensor according to the correspondence between the sensors and the motors set in the data table.

10. (NEW) The numerical controller of claim 8, wherein the correspondence between the sensors and the motors is one-to-n (n being an integer greater than or equal to two).

11. (NEW) The numerical controller of claim 8, wherein an emergency stop signal is associated with the motors as one of the sensor signals.

12. (NEW) A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:

an interface unit receiving signals from sensors and sending the received signals to the motor control section; and

a data table storing a correspondence between the sensors and the motors,

wherein the motor control section receives the signals from the sensors through the interface unit and controls the motors corresponding to the sensors according to the correspondence between the sensors and the motors set in the data table, and

an emergency stop signal is associated with the motors as one of the sensor signals.

13. (NEW) A numerical controller having a numerical control section that outputs movement commands and a motor control section that controls motors according to the movement commands from the numerical control section, the numerical controller comprising:

an interface unit receiving signals from sensors and sending the received signals to the motor control section; and

a data table storing a correspondence between the sensors and the motors,

wherein the motor control section receives the signals from the sensors through the

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interface unit and controls the motors corresponding to the sensors according to the correspondence between the sensors and the motors set in the data table,

the correspondence between the sensors and the motors is one-to-one, one-to-n, or n-to-one (n being an integer greater than or equal to two), and

an emergency stop signal is associated with the motors as one of the sensor signals.